

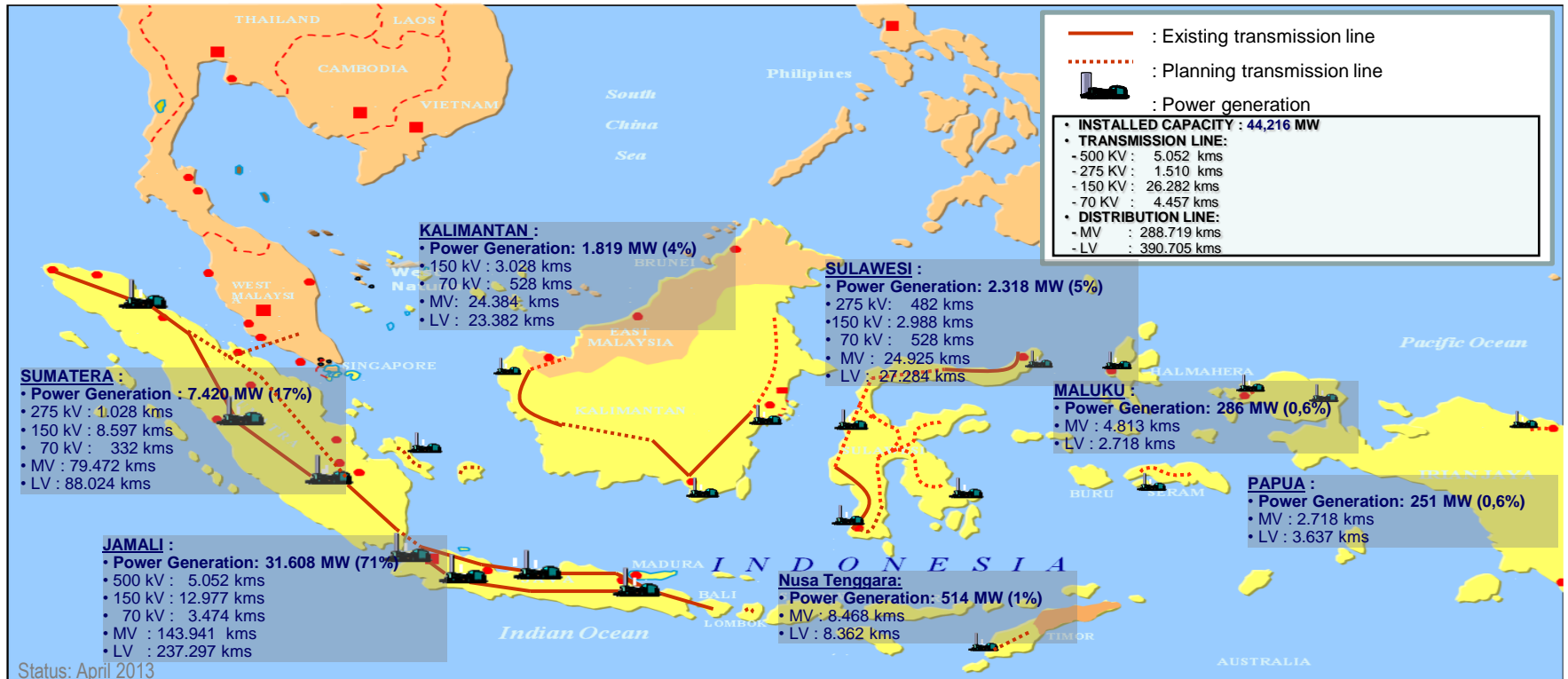


POWER SECTOR POLICY, INVESTMENT OPPORTUNITY & MECHANISM IN INDONESIA

Presented for investors in electricity and energy resources

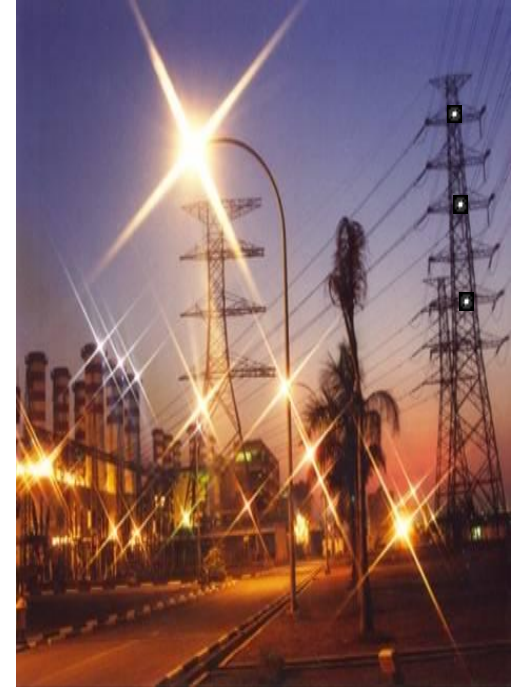
POWER SECTOR POLICIES & REGULATION

Overview of National Electricity Conditions



- ❑ Total of national power generation installed capacity until April 2013 is 44,216 MW, transmission line is 37,301 kms, and distribution line is 679,424 kms.
- ❑ The power system which has been well interconnected are in Java-Bali System and Sumatera System.
- ❑ *Electrification ratio 2012: 76.47 %.*
- ❑ *Energy mixed in power generation in 2012: Coal 51 %, Gas 23%, Oil 15 %, Hydro 6 %, and Geothermal 5 %.*

- ❑ **Increase electrification ratio, 80% in 2014 (currently 76.56 %)**
- ❑ **Improve the investment climate in the power sector.**
Promote private power investment in the power sector
- ❑ **Improve efficiency in the electricity demand and supply side**
- ❑ **Increase the local content (TKDN) in the power sector**
- ❑ **Enforce safety regulations in the power sector**
- ❑ **Encourage energy diversification program shifting away from oil based sources and the utilization of renewable and more environmentally friendly energy sources.**



Important Points of Electricity Act (2009)

- ❑ *Electricity supply for public use will be **controlled by the state, carried out by both the Government (through state owned enterprise) and Regional Government (through regional owned enterprise)** based on the principles of regional autonomy.*
- ❑ *private business entity and others can also participate in this business.*
- ❑ ***Regional tariff will be introduced.** Issues related to retail tariff will be regulated by the Government and its values must be approved by Parliament (DPR) and local parliament (DPRD). This value is determined by several factors i.e.: cost of supply, consumer's capabilities, quality of supply and services. Whenever the retail tariff is set below its cost of supply, the Government or local government should provide subsidy as a public service obligation*
- ❑ ***Cross border trade/transactions** of electricity is allowed with certain requirement.*
- ❑ ***Safety and environmental standard** are applied.*

Important Points of Presidential Regulation

No. 4 of 2010

Assignment to PLN Inc. to Accelerate The Establishment of Power Plant Using Renewable Energy, Coal & Gas (Fast Track 10,000 MW Phase II)

- ❑ ***The Fast Track 10,000 MW Phase II will be implemented by PLN or in cooperation between PLN and IPP's through PPA scheme, and shall include the development of its transmission line.***
- ❑ ***The source of funding can be derived from the State Owned Budget (APBN), the PLN Internal Budget, or other legal funding sources.***
- ❑ ***The Government guarantees the PLN's financial viability.***
- ❑ ***The Government provide facilities such as exemption from import duty and other facilities regulated by The Ministry of Finance.***

INVESTMENT OPPORTUNITY

Necessity for Private Power Participation

- ❑ Based on PLN's Electricity Business Plan (RUPTL PLN) 2012-2021, stated that the electricity demand growth is projected about 8.65 % per year.
- ❑ The additional capacity of power generation that will be developed up to year 2021 is about 57,250 MW or 5,725 MW per year in average.
- ❑ **Electrification ratio is still low** (76.56 % in 2012).
- ❑ **Lack of electricity supply in some areas.**



NEED A HUGE OF ADDITIONAL CAPACITY (estimated of 5,725 MW p.a during 10 years), investment required approx. USD 10.7 billion p.a)

BUT

- ❑ **PLN's investment capability is limited**
- ❑ Subsidiary Loan Agreement for PLN also limited
- ❑ **The Government budget for infrastructure is very limited**

THEREFORE

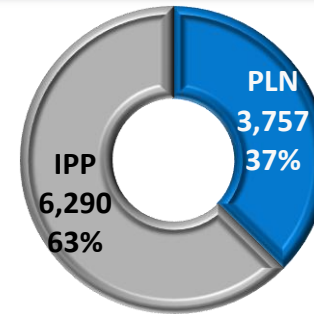
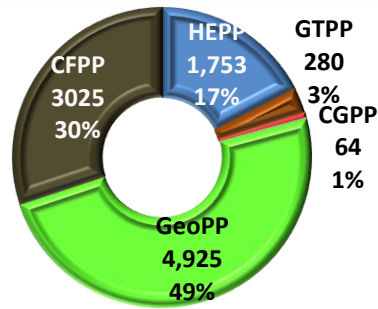
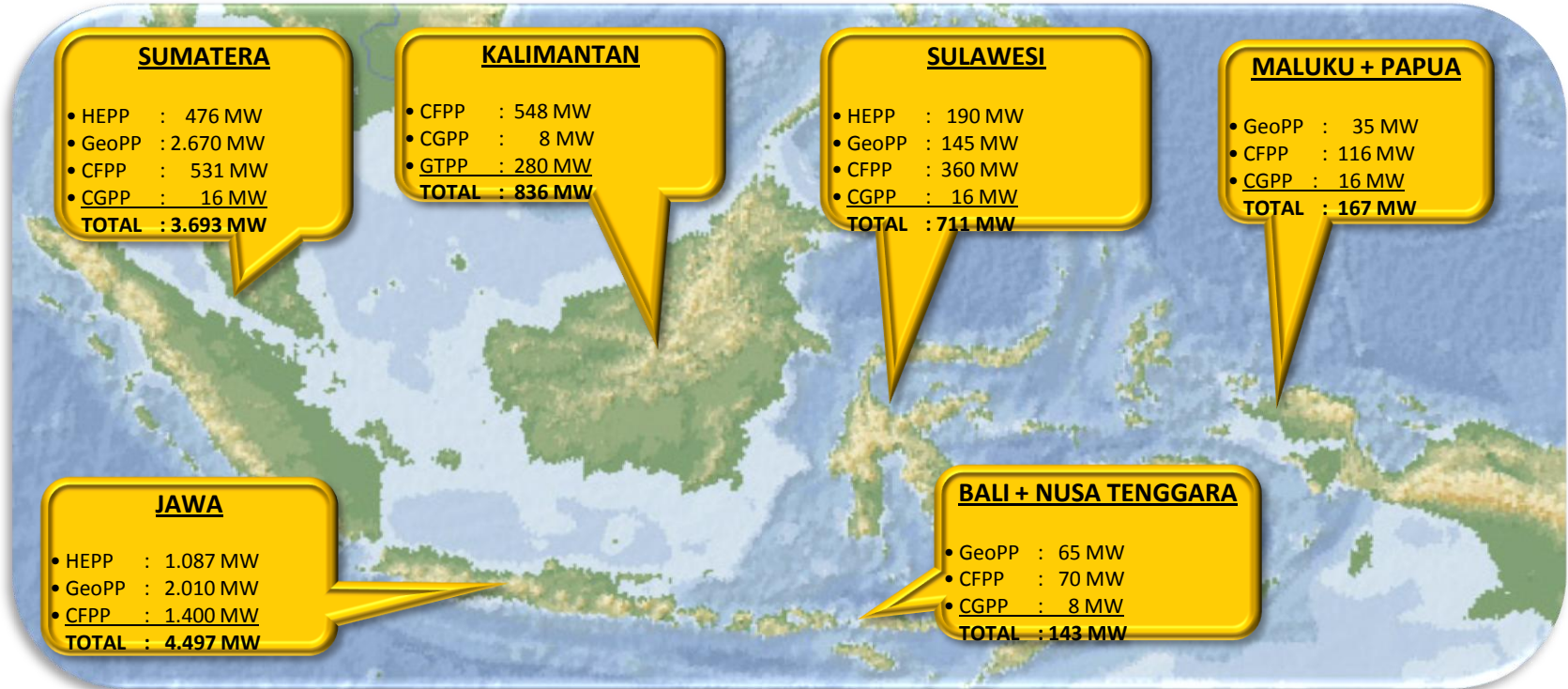
- ❑ **Privates sector participation are required:**
 - Engineering, Procurement and Construction (EPC) Project
 - Independent Power Producer (IPP) Project
 - Public Private Partnership (PPP) Project

Investment Requirement for Electricity Infrastructure Development

- ❑ Up to year 2021, the total investment requirement for electricity infrastructure development is about USD 107,117 Million (USD 10,712 Million per year in average) which is consist of USD 77,375 Million for power generation, USD 15,975 Million for transmission and substation and USD 13,766 Million for distribution.
- ❑ The largest investment requirement is for power generation, afterward for transmission and substation and then for distribution development.

FAST TRACK PROGRAM 10,000 MW PHASE II

(MEMR Regulation No. 01/2012 → Amandement to MEMR Regulation No. 15/2010)



Note:

- HEPP : Hydro Electric Power Plant
- GeoPP : Geothermal Power Plant
- CFPP : Coal Fired Power Plant
- CGPP : Coal Gasification Power Plant
- GTPP : Gas Turbine Power Plant

INVESTMENT MECHANISM

Master Plan of National Electricity

RUKN 2008-2027

MEMR Regulation No. 2682 K/21/MEM/2008



System	Description	Unit	2009	2011	2013	2015	2017	2019	2021	2023	2025	2027
Jawa-Madura-Bali (JAMALI)	Demand	TWh	122	146	176	212	256	310	376	458	559	684
	Peak Load	GW	21	25	30	36	44	52	63	77	94	115
	Additional Power Generation Capacity	GW	5	11	21	31	43	55	70	88	112	141
Outside JAMALI	Demand	TWh	31	36	41	48	56	66	78	91	108	129
	Peak Load	GW	7	8	9	11	12	14	17	19	23	27
	Additional Power Generation Capacity	GW	2	3	5	7	10	13	16	20	25	32
Indonesia	Demand	TWh	153	182	217	260	312	376	454	549	667	813
	Peak Load	GW	28	33	39	47	56	66	80	96	117	142
	Additional Power Generation Capacity	GW	7	15	26	39	53	68	86	109	137	172

Document as attached.

Master Plan of Electricity



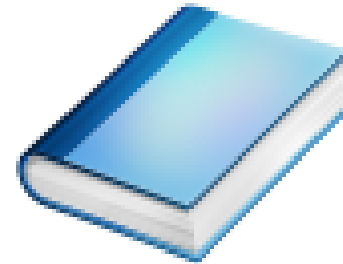
RUKN 2008-2027

(Master Plan of National Electricity)

MEMR Regulation

No. 2682 K/21/MEM/2008

The master plan of national electricity are policies of national electricity plan that indicate demands and supplies of electricity within 20 years ahead. The RUKN are “Rolling Plan”, that can be updated if necessary.



RUPTL 2012 - 2021

(Master Plan of Electricity Development)

A list of electricity development plan to be established within 10 years (By PT. PLN & private/IPP)

Investment Mechanism

Tender

Normally through competitive bidding/tender

Direct Selection

- Energy diversification for power generation to non oil fuel.
- Expansion capacity offered by existing developers more than needed.

Direct Appointment

- Renewable, marginal gas, mine mouth and other local energy.
- Excess power.
- Expansion of IPP
 - Capacity \leq existing.
 - Capacity $>$ existing
 - More efficient technology
 - Environmental friendly
 - Power needed by the system.

Feed in Tariff for EXCESS AND RENEWABLES ≤ 10 MW

(MEMR Regulation No. 04/2012)

Energy	MV (Rp/ kWh)	LV (Rp/ kWh)	
Renewable and Excess Power	656 x F	1.004 x F	F = 1 Java, Bali F = 1.2 Sumatera, Sulawesi F = 1.3 Kalimantan, Nusa Tenggara F = 1.5 Maluku, Papua
Biogas/Biomass	975 x F	1,325 x F	F = 1 Java, Bali, Sumatera F = 1.2 Sulawesi, Kalimantan, Nusa Tenggara F = 1.3 Maluku & Papua
City Waste (zero waste technology)	1,050	1,398	
City Waste (sanitary landfill)	850	1,198	

Note:

No negotiation

No need Minister Approval.

MEMR Regulation No. 22 Tahun 2012

No.	Region	Power Purchase of Geothermal Power Plant (cent US\$/kWh)	
		High Voltage	Medium Voltage
1.	Sumatera	10	11,5
2.	Jawa, Madura and Bali	11	12,5
3.	South Sulawesi , West Sulawesi, and Southeast Sulawesi	12	13,5
4.	North Sulawesi, Central Sulawesi and Gorontalo	13	14,5
5.	West Nusa Tenggara and East Nusa Tenggara	15	16,5
6.	Maluku and Papua	17	18,5

1. Industries of Powerplant

Activities of producing and providing power electricity for public interests by private, not including transmission, distribution, and supporting business of electricity.

(MoF Regulation 128/PMK.011/2009 article 1 para 1)

2. Capital Goods

Machinery, equipment, and factory equipment either attached or separated, not including spareparts for maintenance for electricity supply by private for public interest.

(MoF Regulation 128/PMK.011/2009 article 1 para 2)

3. Provisioning

Exemption of import duty on imported capital goods under the following terms:

1. Goods can not be produced domestically;
2. Goods already manufactured domestically but not yet meet the required specifications, or;
3. Goods are produced domestically but insufficient quantity.

(MoF Regulation 154/PMK.011/2008 article 2 para 2)

LIST OF BUSINESS FIELD THAT OPEN WITH REQUIREMENTS FOR FOREIGN INVESTMENT AT ELECTRICITY ... (1/2)

(Perpres No. 36 / 2010)

No.	Business fields	KBLI	Conditions										Details of Conditions			Remark		
			a	b	c	d	e	f	g	h	i	j	c	d	e			
1.	Power Plant (< 1 MW)	35101	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	a. Reserved for Micro, Small, Medium Enterprises and Cooperatives b. Partnership c. Foreign Capital Ownership d. Certain location e. Special license f. 100% local capital g. Foreign Capital and Location ownership h. Special license and foreign capital ownership i. 100% local capital and special license j. Foreign capital ownership
2.	Small Scale Power Plant (1-10 MW)	35101	-	√	-	-	-	-	-	-	-	-	-	-	-	-		
3.	Operation and Maintenance Service of Geothermal Facility	06202	-	-	√	-	-	-	-	-	-	-	-	Maximum 90%	-	-		
4.	Geothermal Drilling Service	06202	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-	-		
5.	Geothermal Power Plant	06202	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-	-		
6.	Oil and Gas Drilling Service Offshore Outside of Eastern Indonesia Territory	09100	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-	-		
7.	Oil and Gas Drilling Service on Land	09100	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-	-		
8.	Operation and Maintenance Service of Oil and Gas Facility	09100	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-	-		
9.	Power Plant Maintenance and Operation Installation Service	35104	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-	-		
10.	Power Plant (> 10 MW)	35101	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-	-		
11.	Nuclear Power Plant	35101	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-	-		

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LIST OF BUSINESS FIELD THAT OPEN WITH REQUIREMENTS FOR FOREIGN INVESTMENT AT ELECTRICITY ...(2/2) (Perpres No. 36 / 2010)

No.	Business fields	KBLI	Conditions										Details of Conditions			Remark	
			a	b	c	d	e	f	g	h	i	j	c	d	e		
12.	Power Plant Transmission	35102	-	-	√	-	-	-	-	-	-	-	-	-	Maximum 95%	-	requirement and/or location for capital investment from ASEAN countries Recommendation from BATAN
13.	Electricity Distribution	35103	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-		
14.	Constructing and Installing Electricity Service	43211	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-		
15.	Engineering Procurement Construction (EPC) Service	71100	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-		
16.	Electricity Consultation Service	71100	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-		
17.	Technology Development of Electricity Supplied Equipment	72102	-	-	√	-	-	-	-	-	-	-	-	Maximum 95%	-		
18.	Radio Active Mineral Mining	07210	-	-	-	√	-	-	-	-	-	-	-	-	Recommendation from BATAM		

Note:

1. √ = Following the column requirement
2. In the event that the Indonesian Standard Classification of Business Fields (KBLI) includes more than one business field, then provisions as referred to in Appendix II is only applicable to the business fields stated in the column of business fields.
3. What is meant by Micro, Small, Medium Enterprises and Cooperatives (UMKMK) in this Presidential Regulation is individual or business entities that fulfill the criteria as meant in Law Number 20 of 2008 on Micro, Small, Medium Enterprises and Cooperatives and Law Number 25 of 1992 on Cooperative.

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Thank you

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